Volume 12, Number 1, July 1988

American Heart Association

Hypertension

BRIEF REVIEW

Sexual Dysfunction in Hypertensive Men: A Critical Review of the Literature
Sudhir Bansal ____ 1

CLINICAL STUDIES

Altered Circadian Blood Pressure Rhythm in Patients with Cushing's Syndrome
Yutaka Imai, Keishi Abe, Shuichi Sasaki, Naoyoshi Minami, Minoru Nihei, Masanori Munakata, Osamu Murakami, Katsuhiko Matsue, Hiroshi Sekino, Yukio Miura, Kaoru Yoshinaga ____ 11

Effect of Vasopressors on Atrial Natriuretic Factor and Hemodynamic Function in Humans
Yoram Shenker, Eric R. Bates, Brent H. Egan, Jamal Hammoud, Roger J. Grekin ____ 20

Intralymphocytic Sodium and Free Calcium and Plasma Renin in Essential Hypertension
Tetsuya Oshima, Hideo Matsuura, Koji Kido, Koji Matsumoto, Hideaki Fujii, Satoko Masaoka, Mitsunori Okamoto, Yukiko Tsuchioka, Goro Kajiyama, Tokuo Tsubokura ____ 26

LABORATORY STUDIES

Hypertensive Dog Plasma Inhibits the Na^+-K^+ Pump of Cultured Vascular Smooth Muscle
Henry W. Overbeck, Earl T. Wallick, Rieko Shikuma, Wells W. Magargal ____ 32

Release of Fatty Acids by Perfused Vascular Tissue in Normotensive and Hypertensive Rats
Jacob P. Mtabaji, Mehar S. Manku, David F. Horrobin ____ 39

Thromboxane and Vascular Smooth Muscle Cell Growth in Genetically Hypertensive Rats
Toshihiko Ishimitsu, Yoshio Uehara, Masao Ishii, Toshio Ikeda, Hiroaki Matsuoka, Tsuneaki Sugimoto ____ 46

The Renin Response to Aortic Occlusion Is Enhanced by Stimulation of the Hypothalamus
James P. Porter ____ 52

Vasoconstriction and Hypersensitivity to Vasoactive Substances After Acute Volume Expansion in Dogs
Atsuhiro Otsuka, Toshio Ogihara, Katsuhiko Kohara, Horoshi Mikami, Katsutoshi Katahira, Takeshi Tsunetoshi, Yuichi Kumahara ____ 59

Suppression of Angiotensin II Release by Prostaglandin Synthesis Inhibitors in Hind Legs
Kenji Mizuno, Koichi Higashimori, Tadashi Inagami ____ 67

Long-term Microvascular Response to Hydralazine in Spontaneously Hypertensive Rats
Phillip M. Hutchins, Thomas H. Marshburn, Sarah J. Maultsby, Colleen D. Lynch, Thomas L. Smith, Jerry W. Dusseau ____ 74

Renal α_1-Adrenergic Receptor Response Coupling in Spontaneously Hypertensive Rats
William B. Jeffries, Elsa Yang, William A. Pettinger ____ 80

NEWS FROM THE AMERICAN HEART ASSOCIATION ____ Ad page 8

Volume 12, Number 2, August 1988

American Heart Association

Hypertension

BRIEF REVIEW

Cerebral Circulation in Chronic Arterial Hypertension
Gary L. Baumbach, Donald D. Heistad ____ 89

LABORATORY STUDIES

High NaCl Predisposes Dahl Rats to Cerebral Infarction After Middle Cerebral Artery Occlusion
Peter Coyle ____ 96

A Comparison of Nucleoside Transport and Metabolism in Hypertensive and Normotensive Rats
Denise F. Bottiglieri, David Robertson, Edwin K. Jackson ____ 102

Endogenous Digitalislike Circulating Substances in Spontaneously Hypertensive Rats
Irène Wauquier, Marie-Gabrielle Pernollet, Marie-Laure Grichois, Bernard Lacour, Philippe Meyer, Marie-Aude Devynck ____ 108

A Monoclonal Antibody to α-Human Atrial Natriuretic Polypeptide
Masashi Mukoyama, Kazuwa Nakao, Hideo Sugawa, Narito Morii, Akira Sugawara, Takayuki Yamada, Hiroshi Itoh, Shozo Shiono, Yoshihiko Saito, Hiroshi Arai, Tohru Mori, Hisao Yamada, Yutaka Sano, Hiroo Imura ____ 117

Increased Inositol Monophosphate Production in Cardiovascular Tissues of DOCA-Salt Hypertensive Rats
Hoda Eid, Jacques de Champlain ____ 122

Attenuation of Fructose-Induced Hypertension in Rats by Exercise Training
Gerald M. Reaven, Helen Ho, Brian B. Hoffman ____ 129

Sensitivity of Caudal Arteries and the Mesenteric Vascular Bed to Norepinephrine in DOCA-Salt Hypertension
Penelope A. Longhurst, Peter J. Rice, David A. Taylor, William W. Fleming ____ 133

Significance of Renal Vasodilation After Administration of Atrial Natriuretic Factor in the Conscious Dog
Thomas H. Hintze ____ 143

Adenosine in Renin-Dependent Renovascular Hypertension
Akihiro Ohnishi, Ping Li, Robert A. Branch, Italo O. Biaggioni, Edwin K. Jackson ____ 152

Cellular Hypertrophy in Mesenteric Resistance Vessels from Renal Hypertensive Rats
Niels Korsgaard, Michael J. Mulvany ____ 162

Pressure-Diuresis in Volume-Expanded Rats: Cortical and Medullary Hemodynamics
Richard J. Roman, Allen W. Cowley, Jr., Joaquin Garcia-Estañ, Julian H. Lombard ____ 168

Pressure-Diuresis in Volume-Expanded Rats: Tubular Reabsorption in Superficial and Deep Nephrons
Richard J. Roman ____ 177

Arteriolar Diameter and Tissue Oxygen Tension During Muscle Contraction in Hypertensive Rats
Matthew A. Boegehold, H. Glenn Bohlen ____ 184

CLINICAL STUDIES

Dietary Sodium Change in Primary Aldosteronism: Atrial Natriuretic Factor, Hormonal, and Vascular Responses
Roberto Pedrinelli, Giacomo Bruschi, Linda Graziadei, Stefano Taddei, Giovanni Panarace, Guido Orlandini, Andrea Natali, Alberico Borghetti, Antonio Salvetti ____ 192

Erythrocyte Water, Na^+-K^+ Cotransport, and Forearm Vascular Function in Humans
Alan B. Weder, Brent M. Egan ____ 199

Left Ventricular Mass and Exercise Responses Predict Future Blood Pressure: The Muscatine Study
Larry T. Mahoney, Richard M. Schieken, William R. Clarke, Ronald M. Lauer ____ 206

Evaluation of the Baroreceptor–Heart Rate Reflex by 24-Hour Intra-arterial Blood Pressure Monitoring in Humans
Gianfranco Parati, Marco di Rienzo, Giovanni Bertinieri, Guido Pomidossi, Roberto Casadei, Antonella Groppelli, Antonio Pedotti, Alberto Zanchetti, Giuseppe Mancia ____ 214

NEWS FROM THE AMERICAN HEART ASSOCIATION ____ Ad page 13

Volume 12, Number 3, September 1988 American Heart Association

Hypertension

EDITORIAL

Diagnosis Ex Juvantibus: Individual Response Patterns to Drugs Reveal Hypertension Mechanisms and Simplify Treatment
John H. Laragh, Bernard Lamport, Jean Sealey, Michael H. Alderman ____ 223

CLINICAL STUDIES

Cardiopulmonary Reflex Before and After Regression of Left Ventricular Hypertrophy in Essential Hypertension
Guido Grassi, Cristina Giannattasio, Jean Cléroux, Cesare Cuspidi, Lorena Sampieri, Gian Battista Bolla, Giuseppe Mancia 227

Dipyridamole Echocardiography in Essential Hypertensive Patients with Chest Pain
Eugenio Picano, Alessandra Renata Lucarini, Fabio Lattanzi, Alessandro Distante, Virgilio Di Legge, Antonio Salvetti, Antonio L'Abbate ____ 238

Volume (Weight) Loss and Blood Pressure Response Following Thiazide Diuretics
Edward D. Freis, Domenic J. Reda, Barry J. Materson ____ 244

Influence of Race, Sex, and Blood Pressure on Erythrocyte Sodium Transport in Humans
Jean B. Smith, Mary B. Wade, Naomi S. Fineberg, Myron H. Weinberger ____ 251

LABORATORY STUDIES

Central Attenuation of Aortic Baroreceptor Reflex in Prehypertensive DOCA-Salt–Loaded Rats
Yutaka Nakamura, Kazuo Takeda, Tetsuo Nakata, Junko Hayashi, Shingo Kawasaki, Li-Chik Lee, Susumu Sasaki, Masao Nakagawa, Hamao Ijichi ____ 259

Effect of Protein Kinase C Activation on Cytoskeleton and Cation Transport in Human Erythrocytes: Reproduction of Some Membrane Abnormalities Revealed in Essential Hypertension
Yuvenali V. Postnov, Gennadi M. Kravtsov, Sergei N. Orlov, Nikolai I. Pokudin, Ilya Y. Postnov, Yuri V. Kotelevtsev ____ 267

Role of Prostaglandins in Mediating the Renal Effects of Atrial Natriuretic Factor
F. Javier Salazar, Rodney Bolterman, Mary J. Fiksen-Olsen, Thomas Quesada, J. Carlos Romero ____ 274

Central Modulation of Baroreceptor Reflex Response to Phenylephrine by Dihydropyridines in Rats
Patrick Lacolley, Stéphane Laurent, Danita Tsoucaris-Kupfer, Monique Legrand, Anne Marie Brisac, Henri Schmitt ____ 279

Influence of Eicosanoids on Renal Function of DOCA-Salt Hypertensive Rats
Richard J. Roman, Mary L. Kaldunski, David L. Mattson, Mahesh Mistry, Alberto Nasjletti ____ 287

Cardiogenic Hypertension in Maturing Dogs
Fabio Magrini, Nerys Roberts, Giovanna Branzi, Cristina Mondadori, Paolo Reggiani, Michele Ciulla, Roberto Meazza ____ 295

Effects of Hypertension and its Reversal on Canine Arterial Wall Properties
Robert H. Cox, Roger J. Bagshaw ____ 301

Calcium Transport and Vitamin D in Three Breeds of Spontaneously Hypertensive Rats
Harold P. Schedl, Helen D. Wilson, Ronald L. Horst ____ 310

Fate of Recombinant Human Renin Administered Exogenously to Anesthetized Monkeys
Masahito Hiruma, Shokei Kim, Fumihiko Ikemoto, Kazuo Murakami, Kenjiro Yamamoto ____ 317

POINTS OF VIEW

In Defense of Traditional Antihypertensive Therapy
Marvin Moser ____ 324

In Defense of Alternative Antihypertensive Therapy
Randall M. Zusman ____ 327

LETTERS TO THE EDITOR

Recent Life Event Frequencies in Nigerians with Essential Hypertension
Osaretin J. Odia, Eugene O. Uzogara ____ 330

Elevated Phospholipase C and Na^+-H^+ Exchange Activity in Spontaneously Hypertensive Rats
Thomas P. Ek, Richard C. Deth ____ 331

ABSTRACTS OF THE COUNCIL FOR HIGH BLOOD PRESSURE RESEARCH 42ND ANNUAL FALL CONFERENCE AND SCIENTIFIC SESSIONS ____ 333

NEWS FROM THE AMERICAN HEART ASSOCIATION ____ Ad page 13

Volume 12, Number 4, October 1988

American Heart Association

Hypertension

BRIEF REVIEW

The Discovery of Nitric Oxide as the Endogenous Nitrovasodilator
Salvador Moncada, Richard M.J. Palmer, E. Annie Higgs ____ 365

LABORATORY STUDIES

Angiotensin Reactivity in the Cheek Pouch of the Renovascular Hypertensive Hamster
Terry O. Myers, William L. Joyner, Joseph P. Gilmore ____ 373

Arterial Vascular Compliance Response to Vasodilators by Fourier and Pulse Contour Analysis
Stanley M. Finkelstein, V. Ross Collins, Jay N. Cohn ____ 380

Adrenal-Dependent Change in Vascular Reactivity in Stroke-Prone Spontaneously Hypertensive Rats
Cathy A. Bruner, R. Clinton Webb ____ 388

Glucocorticoid Modulation of β-Adrenergic Receptors of Cultured Rat Arterial Smooth Muscle Cells
Allahyar Jazayeri, Walter J. Meyer, III ____ 393

Free Cytosolic Calcium in Renal Proximal Tubules from the Spontaneously Hypertensive Rat
Juan Llibre, Michael S. LaPointe, Daniel C. Batlle ____ 399

Regulation of Renin Gene Expression in Hypertensive Rats
Savvas C. Makrides, Rogerio Mulinari, Vassilis I. Zannis, Haralambos Gavras ____ 405

Angiotensin Converting Enzyme Inhibition Improves Diagnostic Procedures for Renovascular Hypertension in Dogs
Geert-Jan Jonker, Dick de Zeeuw, Roel M. Huisman, D. Bert Piers, Henk Beekhuis, Gjalt K. van der Hem ____ 411

The Endothelium Partially Obscures Enhanced Microvessel Reactivity in DOCA Hypertensive Rats
Charlotte M. King, R. Clinton Webb ____ 420

Analogue-Specific Action in Vitro of Atrial Natriuretic Factor on Human Red Blood Cell Ca^{2+}-ATPase Activity
Faith B. Davis, Susan D. Blas, Matthew M. Davis, Paul J. Davis 428

Adrenal and Vascular Tyrosine Hydroxylase Activity in Goldblatt Hypertension
Albert L. Rauch, Wallace G. Campbell, Jr. ____ 434

CLINICAL STUDIES

Nifedipine: Individual Responses and Concentration-Effect Relationships
Richard Donnelly, Henry L. Elliott, Peter A. Meredith, Andrew W. Kelman, John L. Reid ____ 443

Enhanced Natriuretic Effect of Atrial Natriuretic Factor During Mineralocorticoid Escape in Humans
Carlo A. Gaillard, Hein A. Koomans, Ton J. Rabelink, Branko Braam, Peter Boer, Evert J. Dorhout Mees ____ 450

Age and Blood Pressure Changes: A 20-Year Follow-up Study in Nuns in a Secluded Order
Mario Timio, Paolo Verdecchia, Sandro Venanzi, Simonetta Gentili, Maurizio Ronconi, Bianca Francucci, Mauro Montanari, Ettore Bichisao ____ 457

Effects of Incremental Infusions of Atrial Natriuretic Factor on Aldosterone, Renin, and Blood Pressure in Humans
Wolfgang Oelkers, Susanne Kleiner, Volker Bähr ____ 462

LETTERS TO THE EDITOR

Total Norepinephrine Spillover
Niels Juel Christensen, Jens H. Henriksen ____ 468
Murray Esler ____ 469

NEWS FROM THE AMERICAN HEART ASSOCIATION ____ Ad page 8

Volume 12, Number 5, November 1988 American Heart Association

Hypertension

EDITORIAL

Recommendations of the Adult Treatment Panel of the National Cholesterol Education Program: Implications for the Management of Hypertension
Victor J. Dzau ____ 471

CLINICAL STUDIES

Erythrocyte Deficiency in Calpain Inhibitor Activity in Essential Hypertension
Sandro Pontremoli, Edon Melloni, Bianca Sparatore, Franca Salamino, Roberto Pontremoli, Alberto Tizianello, Cristina Barlassina, Daniele Cusi, Roberto Colombo, Giuseppe Bianchi ____ 474

Altered Hemodynamics During Exercise in Older Essential Hypertensive Subjects
Scott J. Montain, Sarah M. Jilka, Ali A. Ehsani, James M. Hagberg ____ 479

Salt Sensitivity in Blacks: Salt Intake and Natriuretic Substances
James R. Sowers, Michael B. Zemel, Paula Zemel, Frances W. J. Beck, Mary F. Walsh, Edward T. Zawada ____ 485

Arterial Hypertension Is Associated with Hypalgesia in Humans
Sergio Ghione, Caterina Rosa, Lorena Mezzasalma, Elisabetta Panattoni ____ 491

Abnormal Renal Responses to Calcium Entry Blockade in Normotensive Offspring of Hypertensive Parents
Alberto Montanari, Daniele Vallisa, Giorgio Ragni, Angela Guerra, Rossana Colla, Almerico Novarini, Paolo Coruzzi ____ 498

LABORATORY STUDIES

Attenuation of Spontaneous Hypertension in Rats by a Vasopressin Antagonist
Celia D. Sladek, Martha L. Blair, Carol Sterling, Michael L. Mangiapane ____ 506

Arterial Hypertrophy in the Fetal and Neonatal Spontaneously Hypertensive Rat
Christine A. Eccleston-Joyner, Sarah D. Gray ____ 513

Atrial Natriuretic Factor in Specific Brain Areas of Spontaneously Hypertensive Rats
Udo Bahner, Helmut Geiger, Miklós Palkovits, August Heidland ____ 519

LETTERS TO THE EDITOR

Effect of Sodium on Central α_2-Adrenergic Receptors
Haralambos Gavras ____ 525
John P. Koepke, Gerald F. DiBona ____ 526

Individualization of Antihypertensive Therapy
Joël Ménard, Hans R. Brunner, Bernard Waeber, Pierre-François Plouin, Michel Burnier ____ 526

NEWS FROM THE AMERICAN HEART ASSOCIATION ____ Ad page 6

Allyn L. Mark, M.D., has been named Editor-in-Chief of *Hypertension* for the next five years. Effective November 1, 1988, *new* submissions to *Hypertension* should be sent in care of Dr. Mark to the following address:

Hypertension Editorial Office
609 MRC
College of Medicine
University of Iowa
Iowa City, IA 52242

Volume 12, Number 6, December 1988 American Heart Association

Hypertension

EDITORIAL

Ten Years of Hypertension
Edgar Haber ____ 529

BRIEF REVIEW

Mediators Produced by the Endothelial Cell
Ryszard J. Gryglewski, Regina M. Botting, John R. Vane ____ 530

LABORATORY STUDIES

Effect of Chronic Hypertension on Acute Hypertensive Disruption of the Blood-Brain Barrier in Rats
Andrew H. Werber, MaryPat C. Fitch-Burke ____ 549

Responses of Cerebral Arterioles to Adenosine 5'-Diphosphate, Serotonin, and the Thromboxane Analogue U-46619 During Chronic Hypertension
William G. Mayhan, Frank M. Faraci, Donald D. Heistad ____ 556

High Potassium Diet Augments Endothelium-Dependent Relaxations in the Dahl Rat
Leopoldo Raij, Thomas F. Lüscher, Paul M. Vanhoutte ____ 562

Failure of Salt Loading to Inhibit Tissue Norepinephrine Turnover in Prehypertensive Dahl Salt-Sensitive Rats
Claude P. Genain, Sreenivas R. Reddy, Cobern E. Ott, Glen R. Van Loon, Theodore A. Kotchen ____ 568

CLINICAL STUDIES

Initial Antihypertensive Drug Therapy: Final Report of a Randomized, Controlled Trial Comparing α-Blocker and Diuretic
Rose Stamler, Jeremiah Stamler, Flora C. Gosch, David M. Berkson, Alan R. Dyer, Patricia Hershinow ____ 574

Propranolol Increases Prostacyclin Synthesis in Patients with Essential Hypertension
Mary Lee Beckmann, John G. Gerber, Richard L. Byyny, Mary LoVerde, Alan S. Nies ____ 582

Relationship of Serum Sodium, Potassium, Calcium, and Phosphorus with Blood Pressure: Belgian Interuniversity Research on Nutrition and Health
Hugo Kesteloot, Jozef V. Joossens ____ 589

Relationship of Dietary Sodium, Potassium, Calcium, and Magnesium with Blood Pressure: Belgian Interuniversity Research on Nutrition and Health
Hugo Kesteloot, Jozef V. Joossens ____ 594

Changes in Autonomic Regulation Induced by Physical Training in Mild Hypertension
Massimo Pagani, Virend Somers, Raffaello Furlan, Simonetta Dell'Orto, James Conway, Giuseppe Baselli, Sergio Cerutti, Peter Sleight, Alberto Malliani ____ 600

CLINICAL CONFERENCE

Use of Decision Analysis in a Complicated Case of Renovascular Hypertension
Richard I. Kopelman, Robert A. McNutt, Stephen G. Pauker ____ 611

POINT OF VIEW

Genetics of Essential Hypertension: From the Unimodal-Bimodal Controversy to Molecular Technology
Alessandro Camussi, Giuseppe Bianchi ____ 620

SPECIAL REPORT

The International Standard for Atrial Natriuretic Factor: Calibration by an International Collaborative Study
Stephen Poole, Rose E. Gaines Das, Victor J. Dzau, A. Mark Richards, J. Ian S. Robertson ____ 629

LETTER TO THE EDITOR

Resistance to Blood Flow at Maximal Vasodilatation
Björn Folkow ____ 635

ACKNOWLEDGMENTS

A Note of Thanks to Reviewers ____ 638

INDEX TO VOLUME 12 ____ 641

NEWS FROM THE AMERICAN HEART ASSOCIATION ____ Ad page 13